

20041017.ba v03_n715.bam.20041017

>From ???@??? Sun Oct 17 08:47:13 2004 -0500
Message-Id: <200410171346.i9HDkqqm000489@sco.theporch.com>
Date: Sun, 17 Oct 2004 08:46:21 CDT
From: Old Tube Radios <boatanchors@theporch.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: BOATANCHORS digest 3715

BOATANCHORS Digest 3715

Topics covered in this issue include:

- 1) ARN-6 stuff
by "b. smith" <smithab11@comcast.net>
- 2) Old Military Scope
by "Joe Watson" <wwatson5@cox.net>
- 3) Re: Old Military Scope
by Gary Woods <garygarlic@earthlink.net>
- 4) Re: Old Military Scope
by Mike Hanz <AAF-Radio-1@cox.net>
- 5) Re: Old Military Scope
by Gary Woods <garygarlic@earthlink.net>
- 6) Need HQ-129-X power transformer specs.
by "Ken Hickman" <n5cm@rtconline.com>
- 7) Has Andy Moorer's website moved ?
by Chuck McGregor <cbmcg@comcast.net>
- 8) HM129
by "philip" <dgnova@erols.com>
- 9) HQ129
by "philip" <dgnova@erols.com>
- 10) HQ-129
by "philip" <dgnova@erols.com>
- 11) 220v hook up
by "Bob Kemp" <bkemp@bobkemp.com>
- 12) Re: 220v hook up
by Bob Roehrig <broehrig@aurora.edu>
- 13) 220volt hook up
by wb3fau@att.net
- 14) Re: 220volt hook up
by "RJ Mattson" <rjmattson@hvi.net>
- 15) Re: 220volt hook up
by Dan Arney <hankarn@pacbell.net>
- 16) Re: 220v hook up
by "Tom Rauch" <w8ji@contesting.com>
- 17) Re: 220v hook up
by "Bob Kemp" <bkemp@bobkemp.com>
- 18) Re: 220v hook up

by "Tom Rauch" <w8ji@contesting.com>
19) Re: 220volt hook up
by "Nick England" <nick@3rdtech.com>
20) Re: 220v hook up
by "John Page" <k4kwm@hotmail.com>
21) Re: 220v hook up
by "Paul Christensen" <w9ac@arrl.net>
22) Re: 220v hook up
by wb3fau@att.net
23) 220 hook up
by "b. smith" <smithab11@comcast.net>
24) Re: 220v hook up
by Bob Roehrig <broehrig@aurora.edu>

Message-ID: <000901c4b1fa\$58a8e2e0\$94f02144@Denroom>
From: "b. smith" <smithab11@comcast.net>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: ARN-6 stuff
Date: Thu, 14 Oct 2004 10:30:22 -0400
MIME-Version: 1.0
Content-Type: text/plain;
format=flowed;
charset="iso-8859-1";
reply-type=original
Content-Transfer-Encoding: 7bit

Anyone have any ARN-6 items, control head, cables, manual, antenna etc.

breck k4che
Dover, Delaware
Annt nutten in Dover except
Chickens, a NASCAR track,
and hams that can't solder.

Message-ID: <000701c4b266\$ce64d720\$6700a8c0@radiatoroom>
From: "Joe Watson" <wwatson5@cox.net>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Old Military Scope
Date: Thu, 14 Oct 2004 22:26:48 -0500
MIME-Version: 1.0
Content-Type: multipart/alternative;
boundary="-----=_NextPart_000_0004_01C4B23C.E54D3240"

This is a multi-part message in MIME format.

-----=_NextPart_000_0004_01C4B23C.E54D3240

Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: quoted-printable

I have a old military scope of some kind with the nomenclature ID-6 =
A/APN-4.

1. Do any of you know what this is?
2. Do any of you need it?

Joe
W5WBR

-----=_NextPart_000_0004_01C4B23C.E54D3240
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

```
* * * * *
*      ---REMAINDER OF MESSAGE TRUNCATED---      *
*      This post contains a forbidden message format      *
* (such as an attached file, a v-card, HTML formatting) *
*      Mail Lists at theporch.com only accept PLAIN TEXT      *
* If your postings display this message your mail program *
* is not set to send PLAIN TEXT ONLY and needs adjusting *
* * * * *
```

-----=_NextPart_000_0004_01C4B23C.E54D3240--

From: Gary Woods <garygarlic@earthlink.net>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Old Military Scope
Date: Fri, 15 Oct 2004 10:33:23 -0400
Message-ID: <etnvm01rlup7bngq5vmuf4ktmok96ihcm8@4ax.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

On Thu, 14 Oct 2004 22:26:48 -0500, you wrote:

>1. Do any of you know what this is?

Methinks that's the display portion of a passive ECM system that used
various tuning heads to display RF spectra. The scope has multiple
simultaneous traces at different speeds, so you can instantly see pulse
width and pulse repetition rate.

>2. Do any of you need it?

I spent a couple of thousand hours sitting along side one in the radioman's seat. Don't want to try and find the rest of the system...

Gary Woods AKA K2AHC- PGP key on request, or at home.earthlink.net/~garygarlic
Zone 5/6 in upstate New York, 1420' elevation. NY WO G

Message-ID: <416FF426.1020503@cox.net>
Date: Fri, 15 Oct 2004 12:00:38 -0400
From: Mike Hanz <AAF-Radio-1@cox.net>
MIME-Version: 1.0
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Old Military Scope
Content-Type: text/plain; charset=ISO-8859-1; format=flowed
Content-Transfer-Encoding: 7bit

Gary Woods wrote:

> <>Methinks that's the display portion of a passive ECM system that used
> various tuning heads to display RF spectra. The scope has multiple
> simultaneous traces at different speeds, so you can instantly see pulse
> width and pulse repetition rate.

Gary may be thinking of the AN/APR-4 surveillance receiver coupled with an AN/APA-74 seven trace display - there's an APR-4 at http://members.cox.net/aafradio/countermeasures/surveillance_bay.htm. The APN-4 was one of the earlier LORAN navigation sets, replaced by the APN-9 in most large aircraft by the end of the war.

73,
Mike de KC4TOS

From: Gary Woods <garygarlic@earthlink.net>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Old Military Scope
Date: Fri, 15 Oct 2004 15:22:32 -0400
Message-ID: <8j80n0lmlkqlalpgnik5bn1i39jbear31n@4ax.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

On Fri, 15 Oct 2004 12:00:38 -0400, you wrote:

>The APN-4 was one of the earlier LORAN navigation sets, replaced by the
>APN-9 in most large aircraft by the end of the war.

Aaaaaah! I wasn't quite sure about that; and in fact I had the displeasure of setting up an APN-4 loran set in flight. It used analog "step" counters for the time base generation, and they were forever getting out of whack. Fortunately, the various pots were accessible through holes in the side IIRC (that should be a clue). The aircraft in question was going back to Alameda for overhaul, which would include a shiny "new" APN-70, that did timebases digitally, albeit with a long string of tube flip-flops and a truly insane rotary switch that generated the trigger to a thyatron for count reset.

....took a while to dredge _that_ out of the wetware archives!

73,

Gary Woods AKA K2AHC- PGP key on request, or at home.earthlink.net/~garygarlic
Zone 5/6 in upstate New York, 1420' elevation. NY WO G

Message-ID: <000701c4b2e9\$df116600\$414e9844@de114100>

From: "Ken Hickman" <n5cm@rtconline.com>

To: Old Tube Radios <boatanchors@theporch.com>

Subject: Need HQ-129-X power transformer specs.

Date: Fri, 15 Oct 2004 14:05:00 -0500

MIME-Version: 1.0

Content-Type: text/plain;
charset="iso-8859-1"

Content-Transfer-Encoding: 7bit

Hi Fellows,

Someone furnished me the specs for the 129-X chokes which as I remember he got them

from one of the Sam's Folders. I have misplaced the Email. Can someone who has the Sam's

look up the info for transformer?

The rewind company needs the specs for the power transformer which I need rewind.

Any help greatly appreciated!

Take care,

Ken N5CM

Message-Id: <6.0.3.0.0.20041015203224.027d0788@mail.comcast.net>

Date: Fri, 15 Oct 2004 20:34:38 -0700

To: Old Tube Radios <boatanchors@theporch.com>

From: Chuck McGregor <cbmcg@comcast.net>

Subject: Has Andy Moorer's website moved ?
Mime-Version: 1.0
Content-Type: multipart/mixed; x-avg-checked=avg-ok-360220AC;
boundary="====33DE634E===="

--====33DE634E====
Content-Type: text/plain; x-avg-checked=avg-ok-360220AC; charset=us-ascii;
format=flowed
Content-Transfer-Encoding: 8bit

Group -
I was looking for Andy Moorer's SP-600 restoration pages, once found at
www.jamminpower.com but the URL is dead.
Does anyone have a new URL for his site ?

Thanks & 73

Chuck N7RHU

--====33DE634E=====

Message-ID: <003201c4b3c7\$9cc5f7a0\$12022c42@default>
From: "philip" <dgnova@erols.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: HM129
Date: Sat, 16 Oct 2004 17:32:17 -0400
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

>From Sam's

First choke
Filter choke part no 6083 16h at 0.097amp
resistance 270ohm

second choke
Filter choke part no 6084 35h at 0.055amp
resistance 900ohm

Message-ID: <003a01c4b3c8\$3324d720\$12022c42@default>
From: "philip" <dgnova@erols.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: HQ129
Date: Sat, 16 Oct 2004 17:36:29 -0400

MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Sorry should have paid attention

HQ-129 power transformer

Pri 117volts at 0.75amp
Sec1 600vct at 0.097amp
Sec2 5.2vac at 2.9amp (yes that is 5.2v)
Sec3 6.5vac at 3.0amp

Message-ID: <004601c4b3c8\$aaab4a40\$12022c42@default>
From: "philip" <dgnova@erols.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: HQ-129
Date: Sat, 16 Oct 2004 17:39:50 -0400
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

While I am at it:

audio output transformer:
Pri 8500ohms Sec 7ohm

Message-ID: <005b01c4b3d9\$319770a0\$6401a8c0@radio>
From: "Bob Kemp" <bkemp@bobkemp.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: 220v hook up
Date: Sat, 16 Oct 2004 18:38:08 -0500
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

I picked up a Centurion amp and am a little confused as to how to wire an outlet in my house..

The amp is wired for 220 and I'm going to use a outlet (20 amp/250v). BUT, there's only the two hot leads to the pins and the ground. Do I wire the ground as a "neutral" or do I connect both the ground and the neutral to the same terminal on the outlet.

I know the new code for wiring dryers is the four conductor plug & socket where you have the two hot leads, the neutral and the ground!

What's correct way to do this.

I do have a ground to the amp that is tied to an earth ground and that ground is tied back to the water supply line coming into my home. (per some prior discussions on grounding and that ARRL article)

Bob

Date: Sat, 16 Oct 2004 18:58:51 -0500 (CDT)
From: Bob Roehrig <broehrig@aurora.edu>
To: Old Tube Radios <boatanchors@theporch.com>
cc: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: 220v hook up
Message-ID: <Pine.OSF.4.58.0410161854590.88931@mail.aurora.edu>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

On Sat, 16 Oct 2004, Bob Kemp wrote:

> The amp is wired for 220 and I'm going to use a outlet (20 amp/250v). BUT,
> there's only the two hot leads to the pins and the ground. Do I wire the
> ground as a "neutral" or do I connect both the ground and the neutral to the
> same terminal on the outlet.

I would say that it depends. If any part of the amp uses just one side of the line for 120V (such as a blower or filament transformer) where you need the neutral, then you should use the 3rd pin as a neutral. If everything runs off 240, then you don't need a neutral and could wire the 3rd lead as ground.

When I rebuilt my Johnson Desk KW, the plate xfmr runs off 240 and the rest off 120. So I used a 4 pin power connector - having separate neutral and ground leads.

Bob Roehrig
Aurora University Telecom dept.
broehrig@aurora.edu 73 de K9EUI
630-844-4898 fax 630-844-4222
"Nostalgia is a thing of the past"

From: wb3fau@att.net
To: Old Tube Radios <boatanchors@theporch.com>

Subject: 220volt hook up
Date: Sun, 17 Oct 2004 00:19:48 +0000
Message-Id:
<101720040019.28881.4171BAA3000D1589000070D121603831169A0E00CC0D99@att.net>

OK guys, lets get one thing straight here- the neutral is at ground potential. Neutral is a current carrying conductor. The ground wire is a safety, in case of neutral failure. If in doubt, take your meter and measure voltage from either hot terminal to neutral and ground. You should see 120 volts from each hot terminal to ground and to neutral. A separate ground wire in your shack is a good idea. Questions? Russ.

Message-ID: <025901c4b3e3\$ed6ba760\$feb30642@Laptop>
From: "RJ Mattson" <rjmattson@hvi.net>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: 220volt hook up
Date: Sat, 16 Oct 2004 20:54:58 -0400
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

The neutral (white) is a current carrying conductor and is never grounded to the equipment metal cabinet.
The equipment ground (bare or green) is never a backup for the neutral. It is a safety in case the hot wires (black, red etc) come in contact with the metal equipment cabinet. It will then pop the breaker or fuse.
bob...w2ami

Message-ID: <4171C658.9080407@pacbell.net>
Date: Sat, 16 Oct 2004 18:09:44 -0700
From: Dan Arney <hankarn@pacbell.net>
MIME-Version: 1.0
To: Old Tube Radios <boatanchors@theporch.com>
CC: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: 220volt hook up
Content-Type: text/plain; charset=us-ascii; format=flowed
Content-Transfer-Encoding: 7bit

I think the proper 220V wiring is Black/Red/Green.
my .02
Hank
KN6DI

Message-ID: <001f01c4b3e6\$bea5bf80\$6501a8c0@akorn.net>

From: "Tom Rauch" <w8ji@contesting.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: 220v hook up
Date: Sat, 16 Oct 2004 21:15:09 -0400
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

> The amp is wired for 220 and I'm going to use a outlet (20
amp/250v). BUT,
> there's only the two hot leads to the pins and the ground.
Do I wire the
> ground as a "neutral" or do I connect both the ground and
the neutral to the
> same terminal on the outlet.

Bob,

I know this isn't an answer... but it is against electrical
codes to use the third wire as a power return when a three
wire cord has the conductor grounded to the chassis.

My guess would be TT followed national codes, but you might
call them or dig out a schematic and look!

If you follow codes the third wire should connect to the
safety ground. Not the neutral. You really shouldn't connect
the neutral to the safety ground at the outlet or in the
amp.

73 Tom

Message-ID: <004401c4b3e9\$4a266a80\$6401a8c0@radio>
From: "Bob Kemp" <bkemp@bobkemp.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: 220v hook up
Date: Sat, 16 Oct 2004 20:33:18 -0500
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

On the schematic TT shows the hot leads going through fuses and onto the
xfmr.
The third lead or ground pin on the plug shows as a chasis ground.! Could
that be right?

Maybe totally irrelevant, but a number of years ago dryers had only the 3 wire cords - no ground.

So, I suspect this is wired the same way.

I do have a earth ground to all my equipment which also ties to my copper water service near the same point the electrician used his tie point.

Bob

----- Original Message -----

From: "Tom Rauch" <w8ji@contesting.com>

To: "Old Tube Radios" <boatanchors@theporch.com>

Sent: Saturday, October 16, 2004 8:15 PM

Subject: Re: 220v hook up

> > The amp is wired for 220 and I'm going to use a outlet (20
> amp/250v). BUT,
> > there's only the two hot leads to the pins and the ground.
> Do I wire the
> > ground as a "neutral" or do I connect both the ground and
> the neutral to the
> > same terminal on the outlet.
>
> Bob,
>
> I know this isn't an answer... but it is against electrical
> codes to use the third wire as a power return when a three
> wire cord has the conductor grounded to the chassis.
>
> My guess would be TT followed national codes, but you might
> call them or dig out a schematic and look!
>
> If you follow codes the third wire should connect to the
> safety ground. Not the neutral. You really shouldn't connect
> the neutral to the safety ground at the outlet or in the
> amp.
>
> 73 Tom
>

Message-ID: <005a01c4b3eb\$94bcbca0\$6501a8c0@akorn.net>

From: "Tom Rauch" <w8ji@contesting.com>

To: Old Tube Radios <boatanchors@theporch.com>

Subject: Re: 220v hook up

Date: Sat, 16 Oct 2004 21:49:46 -0400

MIME-Version: 1.0

Content-Type: text/plain;

charset="iso-8859-1"

Content-Transfer-Encoding: 7bit

> On the schematic TT shows the hot leads going through
fuses and onto the
> xfmr.
> The third lead or ground pin on the plug shows as a chasis
ground.! Could
> that be right?

Yes, and that would be to national code.

Technically that pin should go to a safety ground of the
outlet.

The safety ground is the bare third conductor that attaches
to the safety ground buss in your fuse panel.

TT is correct. The case connection should not be used for
carrying operating current, not ever. The obvious reason is
if the ground opens up the case would be hot.

Message-ID: <011701c4b3eb\$9c5af670\$6401a8c0@cs.unc.edu>
From: "Nick England" <nick@3rdtech.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: 220volt hook up
Date: Sat, 16 Oct 2004 21:49:58 -0400
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

The issue is that some old gear (like the Johnson Desk KW) was designed
before the code got in the act. The Desk KW uses the chassis as a return
for 115v relays and transformers. Heck the 115v t/r connection from the
Ranger is ONE single wire - the instructions say that if it doesn't work,
flip over the Ranger AC plug - they definitely depend on the chassis ground
as current carrier!

So what do you do? You have a 3 pin plug - two 220v lines and the chassis.
Bear in mind that the chassis is also connected to ground via coax and
probably an RF grounding wire. So you either hook up the neutral to the
chassis as a current carrying conductor or you depend on the coax shield
and/or safety ground to carry current. What's the "neutral" anyway - really
just a wire that goes back to ground at the entry box, right?

It appears these rigs were intended to be hooked up like 3-wire dryers, with
neutral hooked to the chassis. The alternative is re-wiring them to 4-pin

modern sensibilities as someone suggested.

Nick

----- Original Message -----

From: "RJ Mattson" <rjmattson@hvi.net>

To: "Old Tube Radios" <boatanchors@theporch.com>

Sent: Saturday, October 16, 2004 8:54 PM

Subject: Re: 220volt hook up

> The neutral (white) is a current carrying conductor and is never grounded
> to
> the equipment metal cabinet.
> The equipment ground (bare or green) is never a backup for the neutral. It
> is a safety in case the hot wires (black, red etc) come in contact with
> the
> metal equipment cabinet. It will then pop the breaker or fuse.
> bob...w2ami
>

From: "John Page" <k4kwm@hotmail.com>

To: Old Tube Radios <boatanchors@theporch.com>

Subject: Re: 220v hook up

Date: Sun, 17 Oct 2004 12:19:47 +0000

Mime-Version: 1.0

Content-Type: text/plain; format=flowed

Message-ID: <BAY16-F34UEJM39Twin0000db02@hotmail.com>

>When I rebuilt my Johnson Desk KW, the plate xfmr runs off 240 and the
>rest off 120. So I used a 4 pin power connector - having separate neutral
>and ground leads.

>
>
>
>
>
>
>

Bob Roehrig

"

But when I look in the breaker box, all the white neutral lines and the bare copper ground wires all go to the same ground bus. So how does separating them at the equipment make any difference??? Do some breaker boxes have a bus for each. And doesnt neutral go to ground anyway?

I am not an electrician. Nor do I play one on TV. But this thread has opened up some questions about my hookup here and just thought I would ask the question. Thanks, John

Check out Election 2004 for up-to-date election news, plus voter tools and more! <http://special.msn.com/msn/election2004.armx>

Message-ID: <005a01c4b448\$83139480\$6501a8c0@Dorm>

From: "Paul Christensen" <w9ac@arrl.net>

To: Old Tube Radios <boatanchors@theporch.com>

Subject: Re: 220v hook up

Date: Sun, 17 Oct 2004 08:54:58 -0400

MIME-Version: 1.0

Content-Type: text/plain;
charset="iso-8859-1"

Content-Transfer-Encoding: 7bit

> On the schematic TT shows the hot leads going through
> fuses and onto the xfmr. The third lead or ground pin on the plug shows as
a chassis
> ground.! Could that be right?

That is correct, provided that no current is allowed to flow through the ground connection. Some older amplifiers, most notably the Alpha 70, and 77 series, along with some Henrys use non-tapped 120VAC blowers even when the amp is tapped for 240VAC mains. In these cases, only 4-wire service is correct: Line-Neutral-Line-Ground. These older amps were tying ground and neutral together inside the amp or at the power connector. There is only ONE place for ground and neutral come together -- and that's at the load center (AKA breaker box or fuse panel). Because of this, my older Alpha amps now use 4-wire cabling (L-N-L-G) to the load center and 4-pole twist-lock connectors.

Among other ground fault scenarios, the real danger when tying the neutral and ground together at the amp arises when a neutral fault occurs. If the neutral wire opens up at any point between the amp and the load center, current will flow (due to the 120VAC blower) through the amp chassis, and all other chassis potential connections like BNC, PL-259s, and RCA control cables if they are at ground potential. And thus, the entire amp chassis becomes "hot."

-Paul, W9AC

From: wb3fau@att.net

To: Old Tube Radios <boatanchors@theporch.com>

Cc: "John Page" <k4kwm@hotmail.com>,

Old Tube Radios <boatanchors@theporch.com>

Subject: Re: 220v hook up

Date: Sun, 17 Oct 2004 12:59:46 +0000

Message-Id:

<101720041259.12006.41726CC10004F60F00002EE621603831169A0E00CC0D99@att.net>

MIME-Version: 1.0

Content-Type: multipart/alternative;

boundary="NextPart_Webmail_9m3u9jl4l_12006_1098017986_0"

--NextPart_Webmail_9m3u9jl4l_12006_1098017986_0

Content-Type: text/plain

Content-Transfer-Encoding: 8bit

OK, Bob, in the case of your amp- use the 2 hots- black and red, and connect the green wire. You do not need the neutral for your hook up. In the connection of the Johnson desk, you should use the neutral, as 120volts is needed from the source. Ground supplies a path for fault currents only. Yes, the neutral and ground are tied together in the main panel. So, you can argue the point, but this is what the code requires. Russ.

----- Original message from "John Page" : -----

>

>

> >When I rebuilt my Johnson Desk KW, the plate xfmr runs off 240 and the
> >rest off 120. So I used a 4 pin power connector - having separate neutral
> >and ground leads.

> >

> >

> >

> > Bob Roehrig

> > "

> >

>

> But when I look in the breaker box, all the white neutral lines and the
> bare copper ground wires all go to the same ground bus. So how does
> separating them at the equipment make any difference??? > the question. Thanks,
John

>

> -----

>

>

--NextPart_Webmail_9m3u9jl4l_12006_1098017986_0

Content-Type: text/html

Content-Transfer-Encoding: 8bit

```

<html>
<!-- BEGIN WEBMAIL STATIONERY -->
<head><style type='text/css'>
p {
margin: 0px;
}
</style></head>
<body>
<!-- WEBMAIL STATIONERY noneset -->
<P>OK, Bob,&nbsp; in the case of&nbsp; your amp-&nbsp; use the 2 hots- black and
red,&nbsp; and connect&nbsp; the&nbsp; green </P>
<P>wire.&nbsp; You&nbsp; do not&nbsp; need&nbsp; the&nbsp; neutral for&nbsp; your
hook up.&nbsp; In the connection of the Johnson desk,</P>
<P>you should use&nbsp; the neutral,&nbsp; as 120volts is needed&nbsp; from
the&nbsp; source.&nbsp; Ground supplies&nbsp; a path&nbsp; for</P>
<P>fault currents only.&nbsp;&nbsp;&nbsp;&nbsp; Yes,&nbsp; the neutral and ground
are&nbsp; tied together&nbsp; in the&nbsp; main panel.&nbsp; So, you </P>
<P>can argue the point,&nbsp; but&nbsp; this is what&nbsp; the code&nbsp;
requires.&nbsp; Russ.<BR></P>
<BLOCKQUOTE style="PADDING-LEFT: 5px; MARGIN-LEFT: 5px; BORDER-LEFT: #1010ff 2px
solid">----- Original message from "John Page" <K4KWM@HOTMAIL.COM>:
----- <BR><BR>&gt; <BR>&gt; <BR>&gt; &gt;When I rebuilt my Johnson Desk
KW, the plate xfmr runs off 240 and the <BR>&gt; &gt;rest off 120. So I used a 4
pin power connector - having separate neutral <BR>&gt; &gt;and ground leads.
<BR>&gt; &gt; <BR>&gt; &gt; <BR>&gt; &gt; <BR>&gt; &gt; Bob Roehrig <BR>&gt; &gt;
" <BR>&gt; &gt; <BR>&gt; <BR>&gt; But when I look in the breaker box, all the
white neutral lines and the <BR>&gt; bare copper ground wires all go to the same
ground bus. So how does <BR>&gt; separating them at the equipment make any
difference??? &gt; the question. Thanks, John <BR>&gt; <BR>&gt;
----- <BR>&gt;
<BR>&gt; </BLOCKQUOTE>
<!-- END WEBMAIL STATIONERY -->

</body>
</html>

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--NextPart_Webmail_9m3u9jl4l_12006_1098017986_0--

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Message-ID: <002c01c4b44b$3167ce50$94f02144@Denroom>
From: "b. smith" <smithab11@comcast.net>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: 220 hook up
Date: Sun, 17 Oct 2004 09:14:07 -0400
MIME-Version: 1.0
Content-Type: text/plain;
    format=flowed;
    charset="iso-8859-1";

```

reply-type=original
Content-Transfer-Encoding: 7bit

Dont forget to use a ganged circuit breaker for both feeds, when one opens it will gang the other one open . Not good to have one feed hot and the other feed open.

breck k4che

Date: Sun, 17 Oct 2004 08:44:46 -0500 (CDT)
From: Bob Roehrig <broehrig@aurora.edu>
To: Old Tube Radios <boatanchors@theporch.com>
cc: boatanchors@theporch.com
Subject: Re: 220v hook up
Message-ID: <Pine.OSF.4.58.0410170827310.268993@mail.aurora.edu>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

On Sun, 17 Oct 2004, John Page wrote:

> But when I look in the breaker box, all the white neutral lines and the
> bare copper ground wires all go to the same ground bus. So how does
> separating them at the equipment make any difference???

For one thing that's the way the electrical code says it should be. They are assuming a good earth ground is connected to this bus as well as the neutral from the outside feed. (I am not sure if the code is this way all over, but having just added a 2nd 100 amp service to my QTH, I had to have both a ground rod as well as a water pipe ground connected to the panel's ground bus. The original breaker panel only had a ground rod connected so I had to add a water pipe ground to it also).

Sooner or later, ground and neutral have to be connected together and the logical place to do this is at the service entrance.

Having separate leads to the outlet/plugged in device insures that if the neutral opens up, you still have an intact safety ground. Or, as someone else pointed out, if somehow a hot lead contacts the chassis, you are protected that way.

> Do some breaker boxes have a bus for each. And doesnt neutral go to
> ground anyway?

Never seen a box that way. The only thing I have seen is where the ground bus was isolated from the box itself and there was a screw that allowed you to electrically connect the box to the bus, but haven't seen that in a while.

Bob Roehrig
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630-844-4898 fax 630-844-4222
"Nostalgia is a thing of the past"

End of BOATANCHORS Digest 3715
